

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP02/02381

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> G02B5/02, G01F1/1335, F21V8/00//F21Y103:00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> G02B5/02, G01F1/1335, F21V8/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2002
Kokai Jitsuyo Shinan Koho	1971-2002	Jitsuyo Shinan Toroku Koho	1996-2002

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6297908 B1 (Dainippon Printing Co., Ltd.), 02 October, 2001 (02.10.01), Full text; all drawings & JP 2000-56105 A Full text; all drawings	1-13
A	US 2001/30638 A1 (Dainippon Printing Co., Ltd.), 18 October, 2001 (18.10.01), Full text; all drawings & JP 10-246805 A Full text; all drawings	1-13
A	US 6219119 B1 (Kabushiki Kaisha Toshiba), 17 April, 2001 (17.04.01), Full text; all drawings & JP 11-326612 A Full text; all drawings	1-13

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
23 May, 2002 (23.05.02)Date of mailing of the international search report  
04 June, 2002 (04.06.02)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## PATENT COOPERATION TREATY



PCT

NOTIFICATION OF RECEIPT OF  
RECORD COPY

(PCT Rule 24.2(a))

From the INTERNATIONAL BUREAU.

To:

SATO, Kenji  
c/o Shiga Branch, TORAY  
INTELLECTUAL PROPERTY EXPERTS CO.,  
LTD.  
1-1, Sonoyama 1-chome  
Otsu-shi, Shiga 520-8558  
JAPON

Date of mailing (day/month/year) 11 April 2002 (11.04.02)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference TP02010 ✓	International application No. PCT/JP02/02381 ✓

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

- ✓ TORAY INDUSTRIES, INC. (for all designated States except US)  
✓ TAKAHASHI, Hiromitsu et al (for US)

International filing date : 13 March 2002 (13.03.02) ✓  
Priority date(s) claimed : 16 March 2001 (16.03.01) ✓  
27 July 2001 (27.07.01) ✓  
27 July 2001 (27.07.01) ✓

Date of receipt of the record copy  
by the International Bureau : 02 April 2002 (02.04.02)

List of designated Offices :

- ✓ EP : AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR  
National : CN, KR, US  
✓ ✓ ✓


## ATTENTION

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

- ☒ time limits for entry into the national phase - see updated important information (as of April 2002)  
☒ confirmation of precautionary designations (if applicable)  
☒ requirements regarding priority documents (if applicable)

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer:  Masashi HONDA Telephone No. (41-22) 338.83.38
--	--

(19) 世界知的所有権機関  
国際事務局



(43) 国際公開日  
2002 年 9 月 26 日 (26.09.2002)

PCT

(10) 国際公開番号  
WO 02/075375 A1

(51) 国際特許分類:  
G01F 1/1335, F21V 8/00 // F21Y 103:00

G02B 5/02,

大將軍 1 丁目 7-15-105 Shiga (JP). 鈴木 基之  
(SUZUKI, Motoyuki) [JP/JP]; 〒520-0105 滋賀県 大津  
市 下阪本 5 丁目 15-10 Shiga (JP).

(21) 国際出願番号: PCT/JP02/02381

(22) 国際出願日: 2002 年 3 月 13 日 (13.03.2002)

(74) 代理人: 佐藤 謙二 (SATO, Kenji); 〒520-8558 滋賀県 大  
津市 園山 1 丁目 1 番 1 号 株式会社東レアイ・ピー・  
イー 滋賀支所内 Shiga (JP).

(25) 国際出願の言語: 日本語

(26) 国際公開の言語: 日本語

(81) 指定国 (国内): CN, KR, US.

(30) 優先権データ:  
特願2001-075847 2001 年 3 月 16 日 (16.03.2001) JP  
特願2001-228030 2001 年 7 月 27 日 (27.07.2001) JP  
特願2001-228031 2001 年 7 月 27 日 (27.07.2001) JP

(84) 指定国 (広域): ヨーロッパ特許 (AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(71) 出願人 (米国を除く全ての指定国について): 東レ株式  
会社 (TORAY INDUSTRIES, INC.) [JP/JP]; 〒103-8666  
東京都 中央区 日本橋室町 2 丁目 2 番 1 号 Tokyo (JP).

添付公開書類:  
— 国際調査報告書

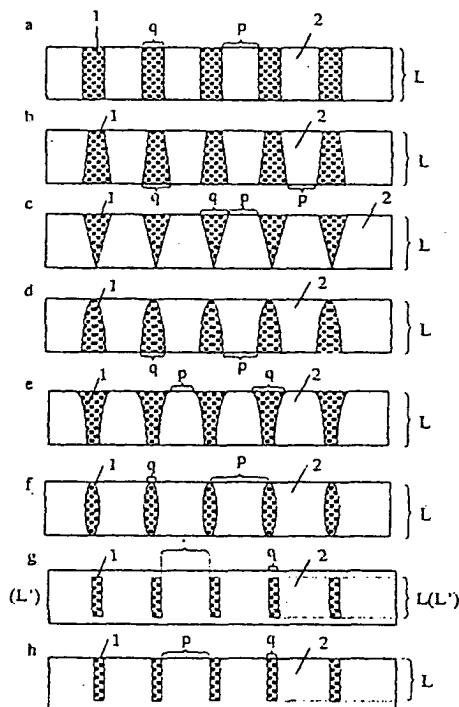
(72) 発明者; および

(75) 発明者/出願人 (米国についてののみ): 高橋 宏光 (TAKA-  
HASHI, Hiromitsu) [JP/JP]; 〒520-2145 滋賀県 大津市

2 文字コード及び他の略語については、定期発行される  
各 PCT ガゼットの巻頭に掲載されている「コードと略語  
のガイダンスノート」を参照。

(54) Title: OPTICAL FUNCTIONAL SHEET

(54) 発明の名称: 光学機能性シート



(57) Abstract: An optical functional sheet, comprising an internal convergent function having a smooth surface allowing a surface finishing and sticking thereof with the other functional sheet, capable of developing a convergent function by the configuration of the inner part thereof, and capable of converging both the lights expanding in vertical and lateral directions of a screen simultaneously by a single sheet, characterized in that optical diffusive phases and transparent phases extending in vertical direction relative to the surface of the sheet are disposed at least in the sheet alternately each other in the direction of the surface of the sheet, whereby the sheet can be used effectively as the back light of a liquid crystal display member.

[続葉有]

WO 02/075375 A1

## PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

To:

SATO, Kenji  
c/o Shiga Branch, TORAY  
INTELLECTUAL PROPERTY EXPERTS CO.,  
LTD.  
1-1, Sonoyama 1-chome  
Otsu-shi, Shiga 520-8558  
JAPAN

NOTIFICATION CONCERNING  
SUBMISSION OR TRANSMITTAL  
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

Date of mailing (day/month/year) 15 May 2002 (15.05.02)	
Applicant's or agent's file reference ✓ TP02010	IMPORTANT NOTIFICATION
International application No. ✓ PCT/JP02/02381	International filing date (day/month/year) ✓ 13 March 2002 (13.03.02)
International publication date (day/month/year) Not yet published	Priority date (day/month/year) ✓ 16 March 2001 (16.03.01)
Applicant ✓ TORAY INDUSTRIES, INC. et al	

- The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
- This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
- An asterisk(\*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
- The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
✓ 16 Marc 2001 (16.03.01)	2001-075847	JP	03 May 2002 (03.05.02)
✓ 27 July 2001 (27.07.01)	2001-228030	JP	03 May 2002 (03.05.02)
✓ 27 July 2001 (27.07.01)	2001-228031	JP	03 May 2002 (03.05.02)

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

PETRESKA Gorica

Telephone No. (41-22) 338.83.38

# PATENT COOPERATION TREATY

PCT



NOTICE INFORMING THE APPLICANT OF THE  
COMMUNICATION OF THE INTERNATIONAL  
APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

SATO, Kenji  
c/o Shiga Branch, TORAY  
INTELLECTUAL PROPERTY EXPERTS CO.,  
LTD.  
1-1, Sonoyama 1-chome  
Otsu-shi, Shiga 520-8558  
Japan

Date of mailing (day/month/year) 26 September 2002 (26.09.02)		IMPORTANT NOTICE	
Applicant's or agent's file reference TP02010			
International application No. PCT/JP02/02381	International filing date (day/month/year) 13 March 2002 (13.03.02)	Priority date (day/month/year) 16 March 2001 (16.03.01)	
Applicant TORAY INDUSTRIES, INC. et al			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this notice:  
KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:  
CN,EP

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this notice is a copy of the international application as published by the International Bureau on  
26 September 2002 (26.09.02) under No. WO 02/075375

4. **TIME LIMITS for filing a demand for international preliminary examination and for entry into national phase**

The applicable time limit for entering the national phase will, subject to what is said in the following paragraph be 30 MONTHS from the priority date, not only in respect of any elected Office if a demand for international preliminary examination is filed before the expiration of 19 months from the priority date, but also in respect of any designated Office, in the absence of filing of such demand, where Article 22(1) as modified with effect from 1 April 2002 applies in respect of the designated Office. For further details, see PCT Gazette No.44/2001 of 1 November 2001, pages 19926, 19932 and 19934, as well as the PCT Newsletter, October and November 2001 and February 2002 issues.

In practice, time limits other than the 30-month time limit will continue to apply, for various periods of time, in respect of certain designated or elected Offices. For regular updates on the applicable time limits (20,21,30 or 31 months, or other time limit), Office by Office, refer to the PCT Gazette, the PCT Newsletter and the PCT Applicant's Guide, Volume II, National Chapters, all available from WIPO's Internet site, at <http://www.wipo.int/pct/en/index.html>.

For filing a demand for international preliminary examination, see the PCT Applicant's Guide, Volume I/A, Chapter IX. Only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination (at present, all PCT Contracting States are bound by Chapter II.)

It is the applicant's sole responsibility to monitor all these limits.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer J. Zahra
Facsimile No. (41-22) 740.14.35	Telephone No. (41-22) 338.91.11

✓ CN 207A 2002.11.16  
✓ EP 217A 2003.10.16  
✓ KR 207A 2002.11.16

IOB / 2002.09.26  
20N / 02075375  
ISOB / 2002.09.26



1/4

## 特許協力条約に基づく国際出願願書

原本 (出願用) - 印刷日時 2002年03月13日 (13.03.2002) 水曜日 10時26分05秒

TP02010

0	受理官庁記入欄	
0-1	国際出願番号	
0-2	国際出願日	
0-3	(受付印)	
0-4	様式-PCT/R0/101 この特許協力条約に基づく国際出願願書は、 右記によって作成された。	PCT 13.3.02 受領印
0-4-1		PCT-EASY Version 2.92 (updated 01.01.2002)
0-5	申立て 出願人は、この国際出願が特許協力条約に従って処理されることを請求する。	
0-6	出願人によって指定された受理官庁	日本国特許庁 (R0/JP)
0-7	出願人又は代理人の書類記号	TP02010
I	発明の名称	光学機能性シート
II	出願人	
II-1	この欄に記載した者は	出願人である (applicant only)
II-2	右の指定国についての出願人である。	米国を除くすべての指定国 (all designated States except US)
II-4ja	名称	東レ株式会社
II-4en	Name	TORAY INDUSTRIES, INC.
II-5ja	あて名:	103-8666 日本国 東京都 中央区 日本橋室町2丁目2番1号
II-5en	Address:	2-1, Nihonbashi-Muromachi 2-chome, Chuo-ku, Tokyo 103-8666 Japan
II-6	国籍 (国名)	日本国 JP
II-7	住所 (国名)	日本国 JP
II-8	電話番号	03-3245-5648
II-9	ファクシミリ番号	047-350-6062
III-1	その他の出願人又は発明者	
III-1-1	この欄に記載した者は	出願人及び発明者である (applicant and inventor)
III-1-2	右の指定国についての出願人である。	米国のみ (US only)
III-1-4ja	氏名 (姓名)	高橋 宏光
III-1-4en	Name (LAST, First)	TAKAHASHI, Hiromitsu
III-1-5ja	あて名:	520-2145 日本国 滋賀県 大津市 大將軍1丁目7-15-105
III-1-5en	Address:	7-15-105, Taishogun 1-chome, Otsu-shi, Shiga 520-2145 Japan
III-1-6	国籍 (国名)	日本国 JP
III-1-7	住所 (国名)	日本国 JP

## 特許協力条約に基づく国際出願願書

原本（出願用） - 印刷日時 2002年03月13日（13.03.2002）水曜日 10時26分05秒

TP02010

III-2 III-2-1	その他の出願人又は発明者 この欄に記載した者は	出願人及び発明者である (applicant and inventor) 米国のみ (US only)
III-2-2 III-2-4j a III-2-4e n III-2-5j a	右の指定国についての出願人である。 氏名(姓名) Name (LAST, First) あて名:	鈴木 基之 SUZUKI, Motoyuki 520-0105 日本国 滋賀県 大津市 下阪本5丁目15-10 15-10, Shimosakamoto 5-chome, Otsu-shi, Shiga 520-0105 Japan
III-2-5e n	Address:	
III-2-6	国籍 (国名)	日本国 JP
III-2-7	住所 (国名)	日本国 JP
IV-1 IV-1-1ja IV-1-1en IV-1-2ja IV-1-2en IV-1-3 IV-1-4 IV-1-5	代理人又は共通の代表者、通知のあて名 下記の者は国際機関において右記のごとく出願人のために行動する。 氏名(姓名) Name (LAST, First) あて名:  Address:  電話番号 ファクシミリ番号 電子メール	代理人 (agent)  佐藤 謙二 SATO, Kenji 520-8558 日本国 滋賀県 大津市 園山1丁目1番1号 株式会社東レアイ・ピー・イー 滋賀支所内 c/o Shiga Branch, TORAY INTELLECTUAL PROPERTY EXPERTS CO., LTD. 1-1, Sonoyama 1-chome, Otsu-shi, Shiga 520-8558 Japan 077-533-8172 077-533-8196 Kenji_Satou@nts.toray.co.jp
V V-1	国の指定 広域特許 (他の種類の保護又は取扱いを求める場合には括弧内に記載する。)	EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR 及びヨーロッパ特許条約と特許協力条約の締約国である他の国
V-2	国内特許 (他の種類の保護又は取扱いを求める場合には括弧内に記載する。)	CN KR US
V-5	指定の確認の宣言 出願人は、上記の指定に加えて、規則4.9(b)の規定に基づき、特許協力条約のもとで認められる他の全ての国の指定を行う。ただし、V-6欄に示した国の指定を除く。出願人は、これらの追加される指定が確認を条件としていること、並びに優先日から15月が経過する前にその確認がなされない指定は、この期間の経過時に、出願人によって取り下げられたものとみなされることを宣言する。	

## 特許協力条約に基づく国際出願願書

原本（出願用） - 印刷日時 2002年03月13日（13.03.2002）水曜日 10時26分05秒


V-6	指定の確認から除かれる国	なし (NONE)	
VI-1	先の国内出願に基づく優先権主張		
VI-1-1	出願日	2001年03月16日 (16.03.2001)	
VI-1-2	出願番号	特願2001-075847	
VI-1-3	国名	日本国 JP	
VI-2	先の国内出願に基づく優先権主張		
VI-2-1	出願日	2001年07月27日 (27.07.2001)	
VI-2-2	出願番号	特願2001-228030	
VI-2-3	国名	日本国 JP	
VI-3	先の国内出願に基づく優先権主張		
VI-3-1	出願日	2001年07月27日 (27.07.2001)	
VI-3-2	出願番号	特願2001-228031	
VI-3-3	国名	日本国 JP	
VI-4	優先権証明書送付の請求 上記の先の出願のうち、右記の番号のものについては、出願書類の認証謄本を作成し国際事務局へ送付することを、受理官庁に対して請求している。	VI-1, VI-2, VI-3	
VII-1	特定された国際調査機関(ISA)	日本国特許庁 (ISA/JP)	
VIII	申立て	申立て数	
VIII-1	発明者の特定に関する申立て	-	
VIII-2	出願し及び特許を与えられる国際出願日における出願人の資格に関する申立て	-	
VIII-3	先の出願の優先権を主張する国際出願日における出願人の資格に関する申立て	-	
VIII-4	発明者である旨の申立て（米国を指定国とする場合）	-	
VIII-5	不利にならない開示又は新規性喪失の例外に関する申立て	-	
IX	照合欄	用紙の枚数	添付された電子データ
IX-1	願書（申立てを含む）	4	-
IX-2	明細書	21	-
IX-3	請求の範囲	2	-
IX-4	要約	1	EZABST00.TXT
IX-5	図面	7	-
IX-7	合計	35	
	添付書類	添付	添付された電子データ
IX-8	手数料計算用紙	✓	-
IX-9	個別の委任状の原本	✓	-
IX-17	PCT-EASYディスク	-	フルキップディスク
IX-18	その他	納付する手数料に相当する特許印紙を貼付した書面	-
IX-18	その他	国際事務局の口座への振込みを証明する書面	-
IX-19	要約書とともに提示する図の番号		
IX-20	国際出願の使用言語名:	日本語	



## 特許協力条約に基づく国際出願願書

TP02010

原本（出願用） - 印刷日時 2002年03月13日（13.03.2002）水曜日 10時26分05秒

X-1	提出者の記名押印	
X-1-1	氏名(姓名)	佐藤 謙二 

## 受理官庁記入欄

10-1	国際出願として提出された書類の実際の受理の日	
10-2	図面：	
10-2-1	受理された	
10-2-2	不足図面がある	
10-3	国際出願として提出された書類を補完する書類又は図面であってその後期間内に提出されたものの実際の受理の日（訂正日）	
10-4	特許協力条約第11条(2)に基づく必要な補完の期間内の受理の日	
10-5	出願人により特定された国際調査機関	ISA/JP
10-6	調査手数料未払いにつき、国際調査機関に調査用写しを送付していない	

## 国際事務局記入欄

11-1	記録原本の受理の日	
------	-----------	--